

PRODUCT

ECS FR-C1 ductwork is a high strength, filament wound product used to convey air in a corrosive atmosphere. Manufactured using a Class 1 brominated bisphenol and an epoxy vinyl ester resin system, FR-C1 series meets ASTM E 84 Class 1 flame spread requirements without the addition of a synergist. The FR line is designed for particularly high static or dynamic loads and has excellent resistance to sustained wear. FR-C1 is highly resistant to a number of chemical environments including most compounds encountered in a municipal water / waste-water treatment system.

DESIGN

Although FR-C1 is a standard product each individual system is designed specifically for the application. Standards of design and production include:

- ASTM 3982
- ASTM D 2992
- NBS PS 15-69
- ASTM 581
- ASTM D 3567
- ASTM C 582
- AWWA M-45
- ASTM D 2310

Environmental factors taken into account include, but are not limited to: pressure, deflection, expansion / contraction and burial service.

INTERNAL CORROSION BARRIER



A 100-mil resin-rich reinforced internal corrosion barrier provides excellent corrosion resistance and protection from the corrosive gas-stream. This barrier was engineered using data from ASTM C 581. Make-up consists of a single veil backed by two layers of 1.5 oz. chopped strand mat. This corrosion barrier is the first line of defense against corrosion.

STRUCTURE

ECS-FR-C1 is helically wound utilizing a computerized filament winder. This process allows for the perfect control of the structural thickness and mechanical properties.



EXTERIOR

ECS FR-C1 comes standard with a gel coated exterior. The gel coat is specially formulated with a UV additive to allow for installation in direct sunlight. Standard colors include white, light grey or tan. Custom formulations are available upon request.



BENEFITS

The excellent corrosion resistance of FR-C1 ducting systems provides longer service life than traditional fiberglass ductwork or commodity fiberglass piping systems.

FR-C1 ductwork systems are light weight and easily installed. Reductions in labor costs and infrastructure result in lower installed costs.